THE CLAIMS

1. (Previously presented) A method for applying an image forming composition to one or more sides of a mesh fabric using a drop on demand ink printer, comprising:

operating the drop on demand ink printer at a fluid pressure of between 1 and 3.5 bar, wherein the image forming composition has a viscosity of less than 100 cp, the drop on demand ink jet printer having an array of nozzles, each nozzle of the array of nozzles including an orifice~~,~~; and

controlling the flow of the image forming composition through the nozzle orifice by the use of at least one solenoid valve, the at least one solenoid valve having a plunger, the plunger of the at least one solenoid valve having a diameter of less than 2.5 mm, the plunger journalled for axial reciprocation between a rest and an operative position within an electric coil under the influence of a magnetic field generated by that coil when an electric current passes through the coil, the distal end of the plunger extending into a valve head chamber having an outlet nozzle bore, the reciprocation of the plunger being adapted to open or close a fluid flow path from the valve head chamber through that bore, characterised in that:

a. the plunger is of a unitary construction and is made from an electromagnetically soft material having a saturation flux density greater than 1.4 Tesla, preferably about 1.6 to 1.8 Tesla, a coercivity of less than 0.25 ampere per metre, and a relative magnetic permeability in excess of 10,000; and

b. the nozzle bore leading from the valve head chamber to the nozzle orifice has a length to diameter ratio of less than 8:1, preferably from 1.5:1 to 5:1, notably from 2:1 to 4:1.

2. (Original) A method according to claim 1 wherein the viscosity of the image forming composition is in the range of 5 to 20 cp.

3. (Previously presented) A method according to claim 1 or claim 2 wherein the nozzle orifices have a diameter in the range of 20 to 200 μm.

4. (Original) A method according to claim 3, wherein the nozzle orifices have a diameter in the range of substantially 40 to 60 μm for thin mesh fabric types.

5. (Canceled)

6. (Previously presented) A method according to claim 1, wherein the valve is held in the open position for a prolonged period of time to print continuous lines on the mesh fabric.

7. (Previously presented) A method according to claim 6, wherein the amplitude of the current flowing through the coil required to hold the plunger in the valve open position is typically 80 to 50% less, than the current required to move the plunger initially away from its rest position.